

Abstract

A method for multiplexed detection and quantification of analytes by reacting them with probe molecules attached to specific and identifiable carriers. These carriers can be of different size, shape, color, and composition. Different probe molecules are attached to different types of carriers prior to analysis. After the reaction takes place, the carriers can be automatically analyzed. This invention obviates cumbersome instruments used for the deposition of probe molecules in geometrically defined arrays. In the present invention the analytes are identified by their association with the defined carrier, and not (or not only) by their position. Moreover, the use of carriers provides a more homogenous and reproducible representation for probe molecules and reaction products than two-dimensional imprinted arrays or DNA chips.